

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangma”, Belgaum -590014, Karnataka.



## PROJECT WORK-1 REPORT on

## HOSTEL MANAGEMENT SYSTEM

*Submitted by*

**JIGAR D PATEL (1BM21CS081)  
KRISHN MALOO(1BM21CS092)  
KSHITIJ S (1BM21CS093)**

*Under the Guidance of*

**Namratha M  
Assistant Professor, BMSCE**

*in partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

*in*

**COMPUTER SCIENCE AND ENGINEERING**



**B.M.S. COLLEGE OF ENGINEERING BENGALURU-560019**

(Autonomous Institution under VTU)

**B. M. S. College of Engineering,**

**Bull Temple Road, Bengaluru 560019**

(Affiliated To Visvesvaraya Technological University, Belgaum)

## Department of Computer Science and Engineering



### CERTIFICATE

This is to certify that the project work entitled “**HOSTEL MANAGEMENT SYSTEM**” carried out by **JIGAR D PATEL (1BM21CS081), KRISHN MALOO (1BM21CS092)**

**AND KSHITIJ S(1BM21CS093)** who are bonafide students of **B. M. S. College of Engineering**. It is in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the Visveswaraiah Technological University, Belgaum during the year 2022-23. The project report has been approved as it satisfies the academic requirements in respect of **Web Application Development (21CS3AEWAD)** work prescribed for the said degree.

Signature of the Guide  
Namratha M  
Assistant Professor  
BMSCE, Bengaluru

Signature of the HOD  
Dr. Jyothi S Nayak  
Prof & Head of Dept of CSE  
BMSCE, Bengaluru

External Viva

Name of the Examiner

Signature with date

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

**B.M.S. COLLEGE OF ENGINEERING DEPARTMENT OF  
COMPUTER SCIENCE AND ENGINEERING**



***DECLARATION***

We, JIGAR D PATEL (1BM21CS081), KRISHN MALOO (1BM21CS092), KSHITIJ S (1BM21CS093), students of 3<sup>rd</sup> Semester, B.E, Department of Computer Science and Engineering, BMS College of Engineering, Bangalore, hereby declare that, this Web Application Development entitled "Hostel Management System" has been carried out by us under the guidance of Namratha M, Assistant Professor, Department of CSE, BMS College of Engineering, Bangalore during the academic semester Oct-Feb 2022-23.

We also declare that to the best of our knowledge and belief, the development reported here is not from part of any other report by any other students.

Signature

JIGAR D PATEL (1BM21CS081)  
(1BM21CS092)

KRISHN MALOO

KSHITIJ S (1BM21CS093)

# TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
1	<b>Introduction</b>	5
1.1	Overview	5
1.2	Motivation	5
2	<b>Software Requirement Specification</b>	6
2.1	Hardware Requirements	6
2.2	Software Requirements	6
3	<b>User Interface Design</b>	7
3.1	Home Page (Landing page)	7
3.1.1	Admission	8
3.1.2	Mess	9
3.1.3	Events	9
3.2	Login Page	10
3.3	After login page	12
3.3.1	Student-Detail page (Profile)	13
3.3.2	Warden Details	14
3.3.3	Mess	14
3.3.3.1	Menu	14
3.3.3.2	Suggestion form	15
3.3.4	Fee payment	16
3.3.5	Complaint	17
3.3.6	Application	18
3.3.6.1	Leave Application	19
3.3.6.2	Late Coming Application	21
4	<b>BMS Educational Trust Hostels</b>	
4.1	BMSCE Admin	
4.2	Admin Complaints	
4.3	Leave Application	
4.4	Admin Mess Suggestions	
4.5	Admin Late Coming Applications	
4.6	Student Details Form	
4.6.1	Student Form	

## **Chapter 1**

# **INTRODUCTION**

### **1.1 Overview**

In this Project “Hostel-Management System”, we have made an effort to make the Hostel-System of BMSETH online. Our website includes exclusive features for Hostellers like Hostel leave application forms, Suggestion box, Complaint box, personalized dashboard etc. We also have information about Hostel facilities like Hostel Events, Mess, Accommodation and Admissions, Code of Conduct, Anti-ragging norms etc.

### **1.2 Motivation**

Our major advantages can be summarized as follows:

#### **Easy Access**

Making Hostel- Website online would ensure easy access to hostel-facilities to both Freshers seeking admissions into BMSETH and presently residing hostellers in campus.

#### **Easy Payments Options**

Presently Hostel accepts payments only in offline mode, This project will help making transactions online and henceforth there will be easier and smoother payments.

#### **Easy Communication:**

Communication among hostelites, Hostel admins and Guardians.

#### **Reactive:**

Presently BMSETH website is not reactive, In this website, the data will be regularly updated.

## **Chapter 2**

# **SOFTWARE REQUIREMENTS**

### **2.1 Hardware Requirements:**

- A PC with the following or greater specifications:
  - Intel Core i5 (11<sup>th</sup> gen or higher)
  - 8 GB RAM ○ 512 SSD
- A stable internet connection (2Mbps or higher).

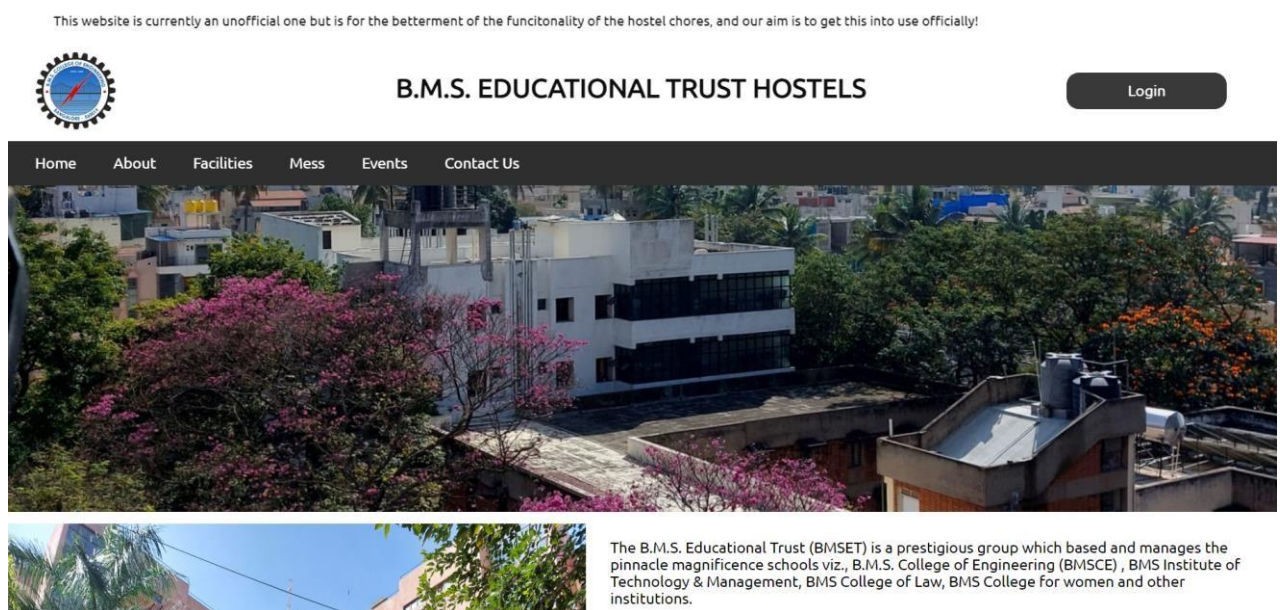
### **2.2 Software Requirements:**

- |                    |   |                       |
|--------------------|---|-----------------------|
| • Operating system | : | Windows 11            |
| • Technologies     | : | HTML, CSS, JavaScript |
| • IDE              | : | Visual Studio Code    |

## Chapter 3

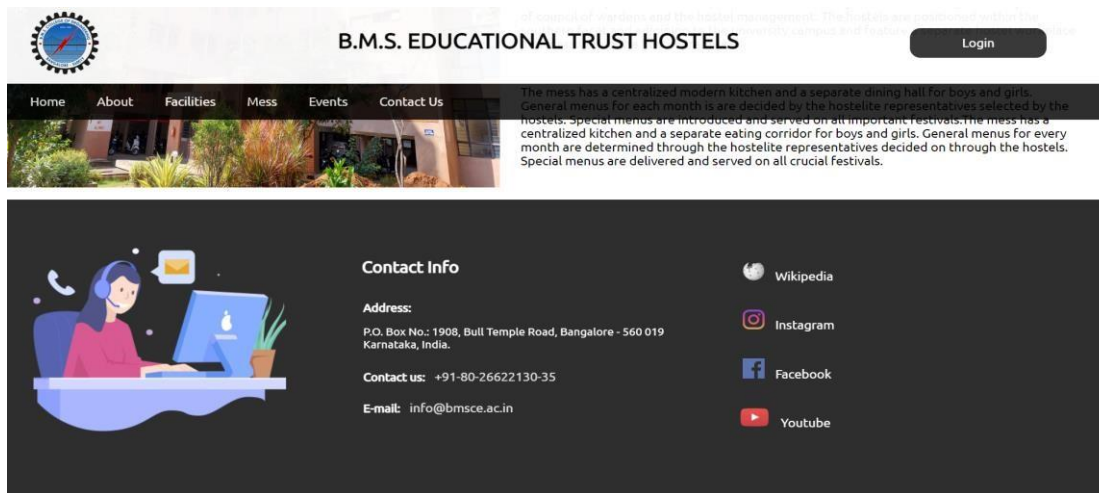
# USER INTERFACE DESIGN

### 3.1 Home Page (Landing Page)



**Fig.1.1 Home page-Header**

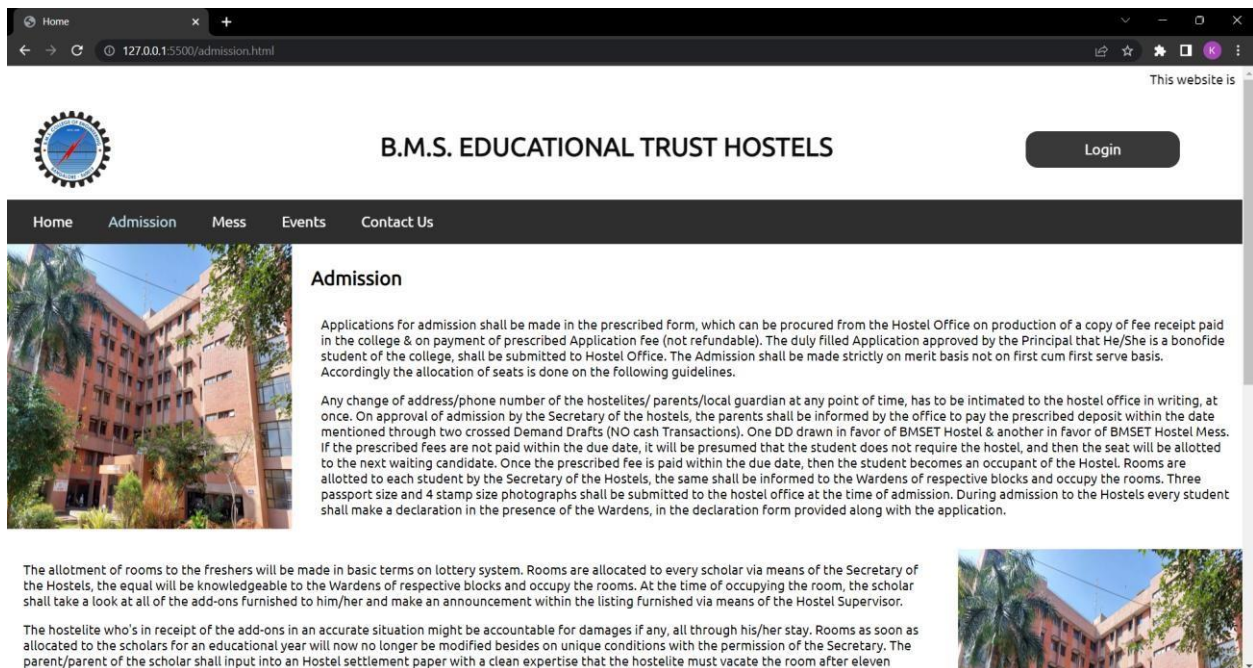
- The page is divided using <div> tags.
- The page is divided into three parts – header, main body and footer.
- Header contains floater, title and login button along with navigation bar and followed by an image.
- The body contains a brief introduction/description about hostels.



**Fig 1.2 Home-Footer**

- The footer contains contact information and is divided into three sub parts containing an image, contact information and social media handles respectively.

### 3.1.1 Admission



**Fig 3.1.1 Admission**

- Admission tab is a descriptive page which gives information about the admission procedure into the hostels and rules and regulations.



### 3.1.2 Mess

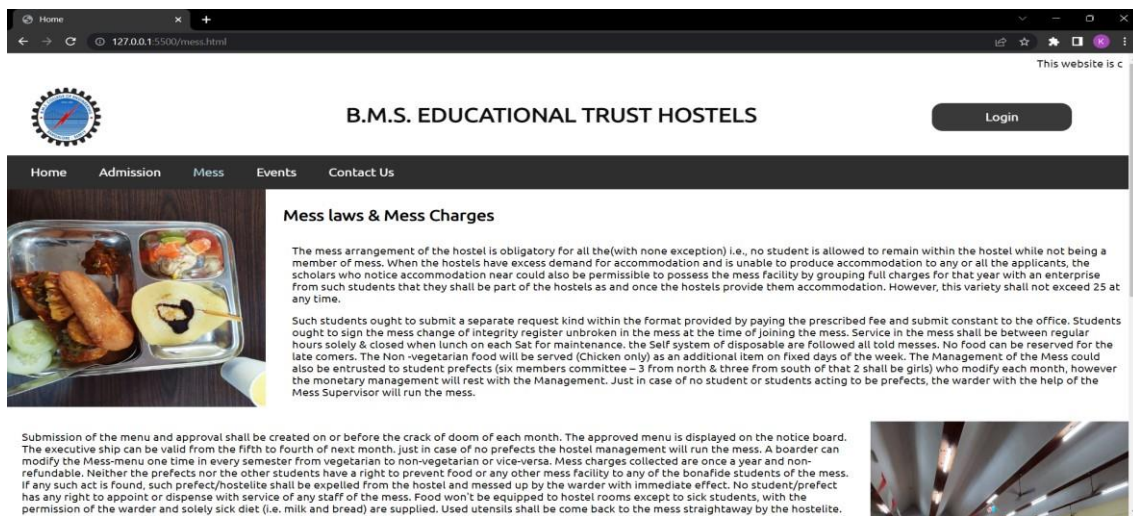


Fig 3.1.2 Mess

- Tab includes information about mess laws and charges along with a description about the food served.

### 3.1.3 Events

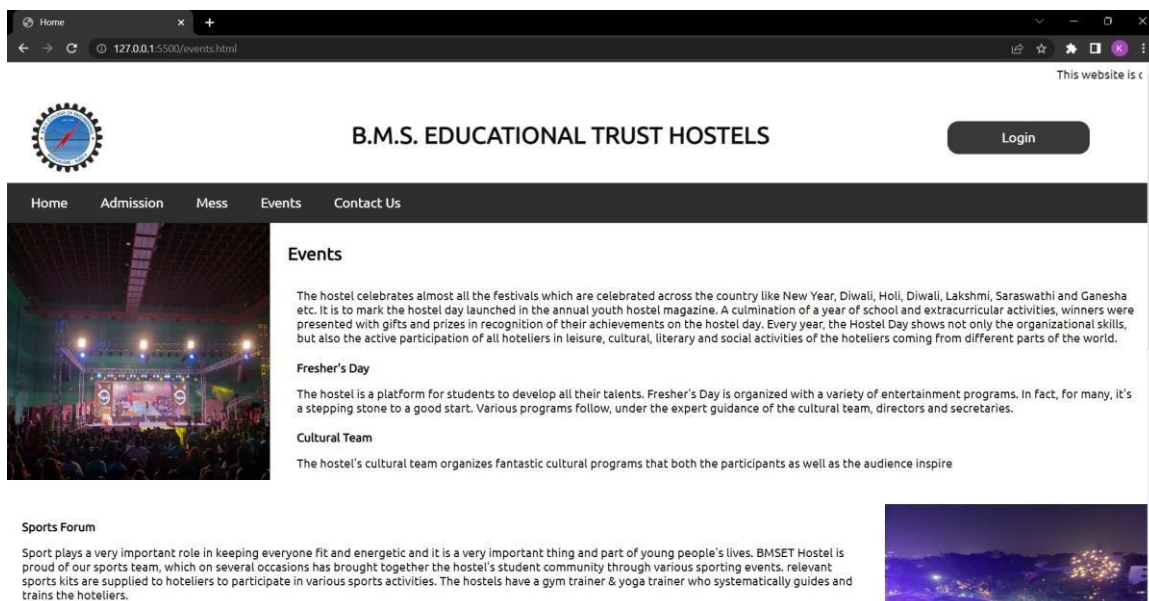


Fig 3.1.3 Events

- Tab gives information about the events conducted by BMSETH and gives a brief description about them.

### 3.2 Login Page

- Hostelites should sign-in to view details/status of their accommodation and services by Hostel
- Username and password should be entered by the student to login.
- The submit button on clicking/hovering changes its properties (as shown in fig 2.2).
- The page validates if a valid username is entered and displays a pop-up when login is successful.

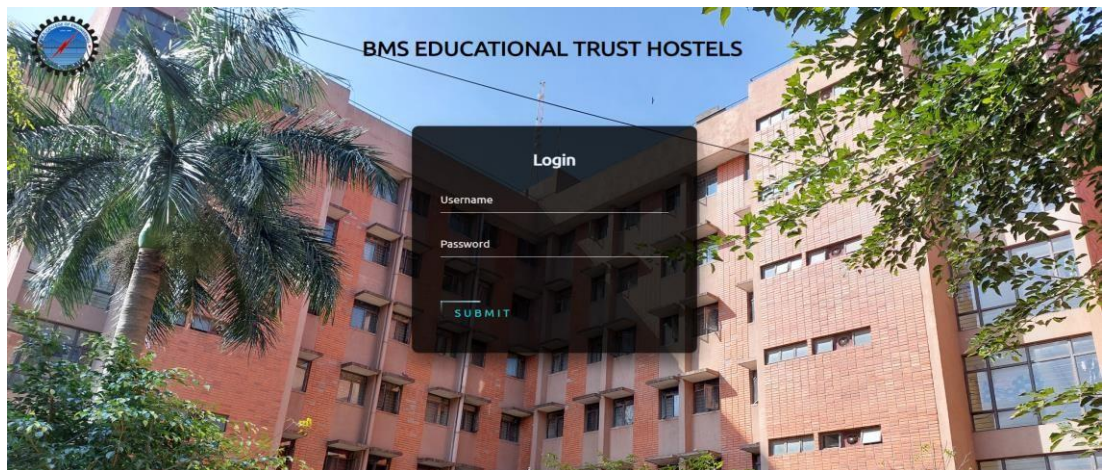


Fig 2.1

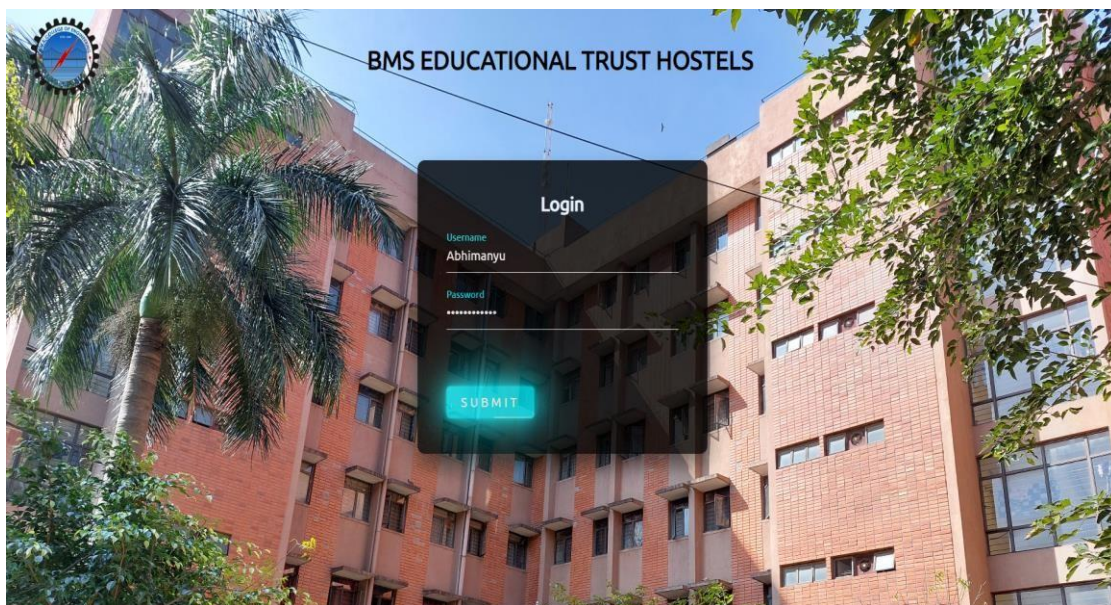


Fig 2.2



## Validations

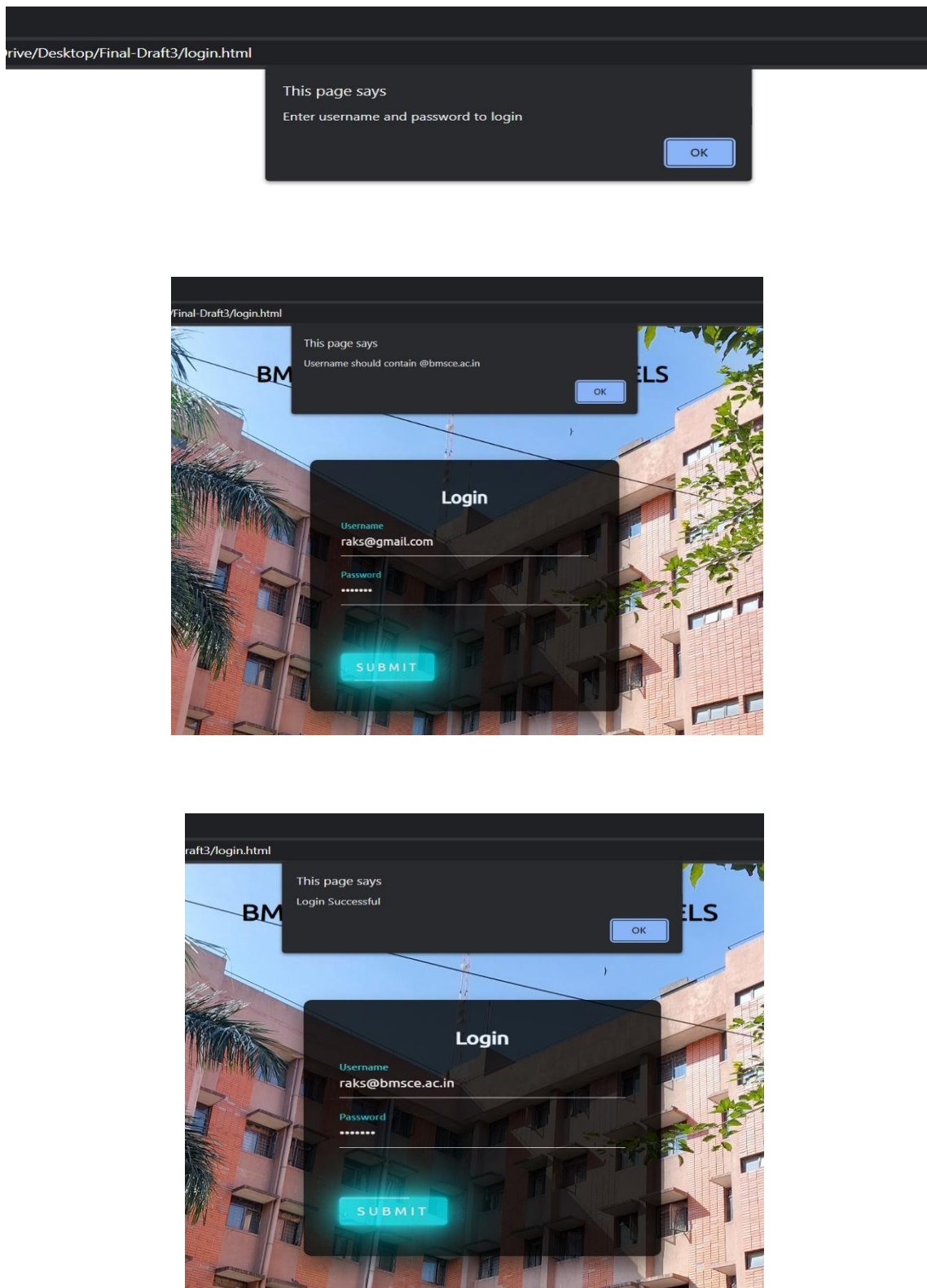


Fig 2.3

### 3.3 After Login-Page

- This is the page user reaches after logging in.
- This page is divided into two parts header and body.
- The header contains logo, title and button which directs back to main website along with a navigation tab with link to different pages.

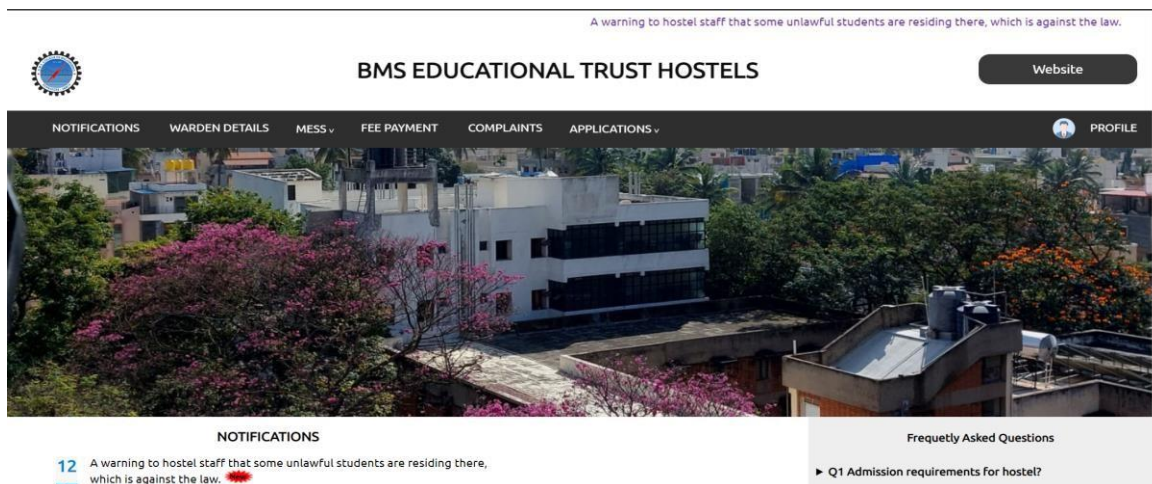


Fig 3.1

- Body is divided into two parts one contains the notification along with date and summary tag is used here to provide an option to read more about a particular notification.
- Similarly, the other part has FAQs and summary tag is used here also.

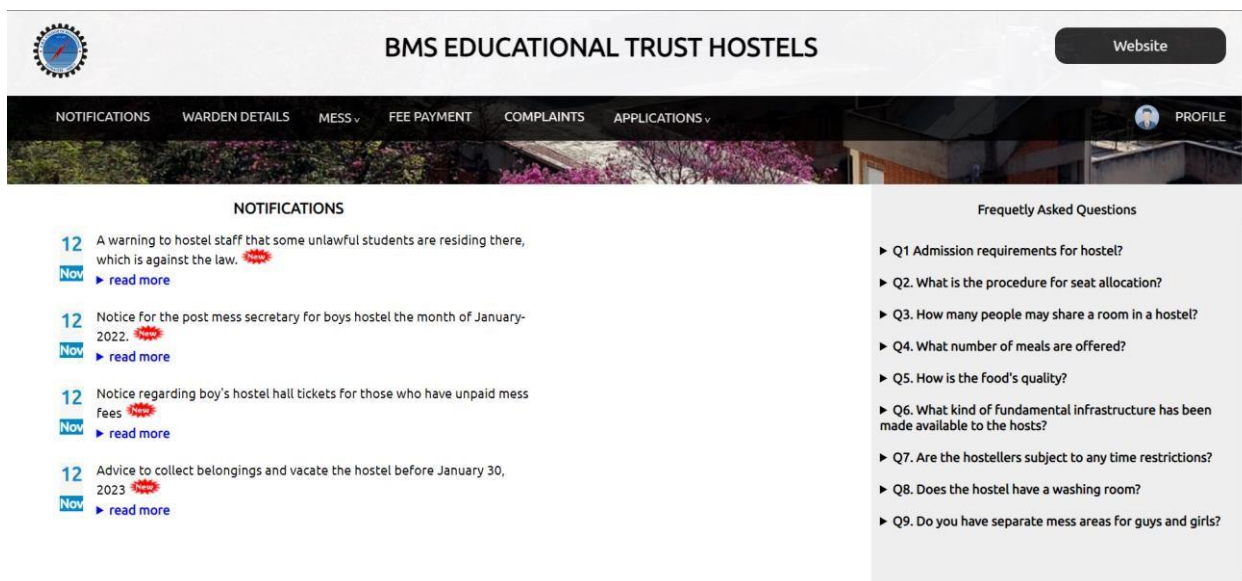


Fig 3.2

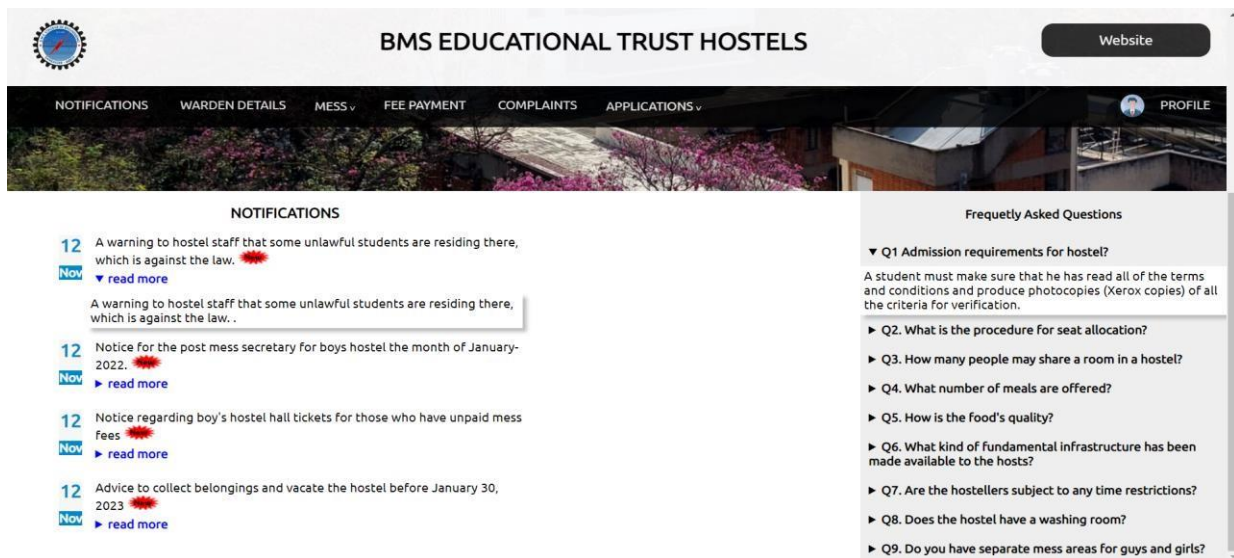


Fig 3.3

### 3.3.1 Student-Detail Page (Profile)

- Tab contains personal and academic information of the student.
- The page is divided using <div> tags and there are options to change profile photo as well.
- Displays academic history, family background, hostel room details etc.

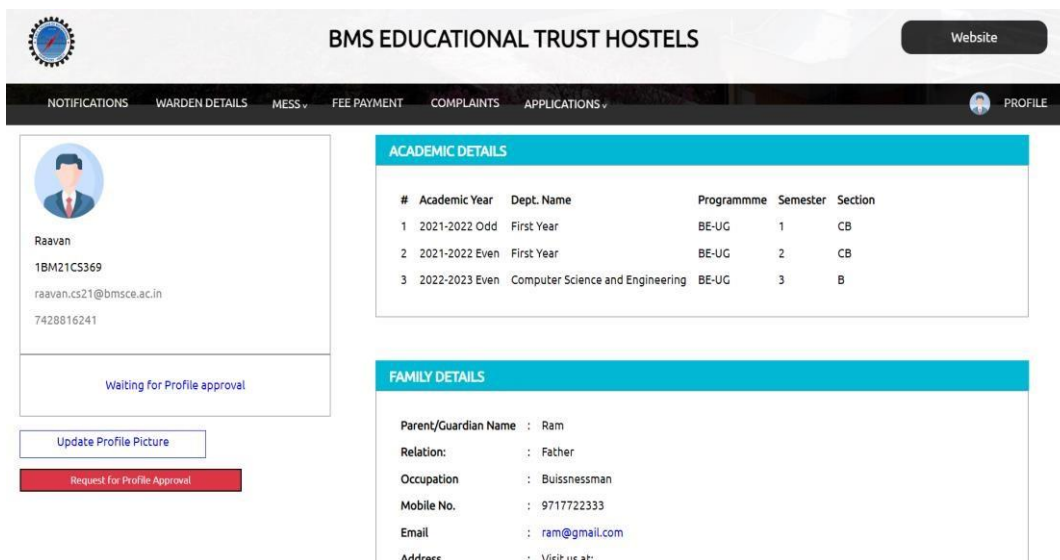


Fig 3.3.1.1

### 3.3.2 Warden Details Tab

- Following page displays details of warden and supervisor.
- Contains contact information of the warden and supervisor.
- Page is divided using <div> tags.

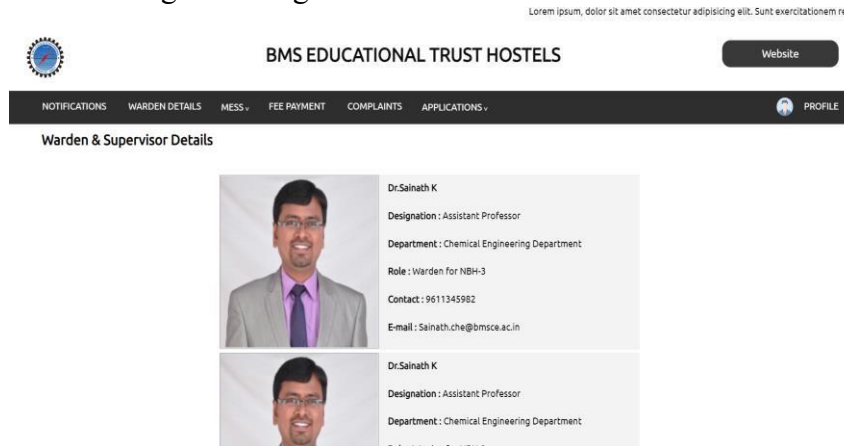


Fig 3.3.2

### 3.3.3 Mess

- Contains two dropdown options – menu and suggestion form.
- Menu page contains the menu in .jpg form.
- Suggestion form takes in suggestions for the menu based on day and meal.

#### 3.3.3.1 Menu

MESS MENU FOR THE MONTH OF NOVEMBER-DECEMBER 2022.

	BREAKFAST	LUNCH	SNACKS	DINNER
Mon	Chole Bhature, Sprouts, Boiled egg, Seasonal fruits, Milk (Boost powder), TC.	Butter Chapati, Veg Kolhapur, Jeera rice, Rice, Rasam, Dal, Curd, Chili, Papad, Sweet-corn, Pickle.	Samosa, Badam milk, Tea.	Butter Chapati, Dal tadka, Alasandi Kalu palya, Khara Pongal, Rice, Pumpkin sambar, Ghee, Curd, pickle, Fruit salad with custard.
Tue	Benne Masala Dose, ground chutney, Sambar, Fruit juice, TC.	Butter Chapati, Aloo Gobi, Groundnut masala, Veg Palya, Dal, Rice, Rasam, Vegetable sambar, Curd, Puliogare, Pickle.	Peri-peri Fries, Hot chocolate milk, Coffee.	Methi Chapati, Dal, Black chole Masala, Egg bhurji, Pudina rice, Rice, Sambar, curd, pickle, Carrot halwa / Jalebi.
Wed	Poha, Omelette, Bread Jam, Sprouts, Pineapple Juice, TC.	Poori, Aloo dum, Coconut chutney, rice, Rasam, sambar, Dal tadka, Vegetable salad, Methi pulao, Boti-papads, Pickle,	Dabeli Milk (Boost powder), Tea.	Butter Roti, Butter Paneer masala, Ghee Rice, Rice, Dal, Butter Chicken masala, curd, Chutney Pudi, Pickle, Triple bar.
Thu	Set Dosa, Sambar, Chutney, Watermelon, TMC.	Butter Chapati, Bhindi masala Palya, Black chana dry, Bisibelebath, Bundi, Rice, Rasam, Palak Dal, Vegetable	Tikki puri,	Chapati, Hesaru Kaalu Palya, Gobi 65, Dal, Rice, Radish sambar, Palak rice, Curd, pickle.

Fig 3.3.3.1



### 3.3.3.2 Suggestion Form

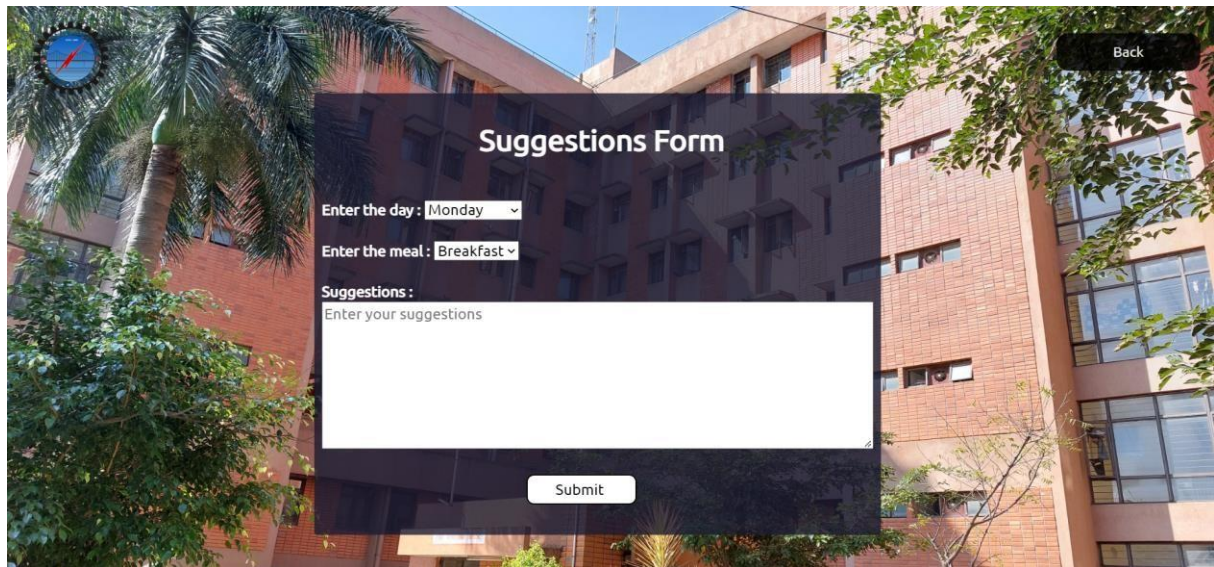
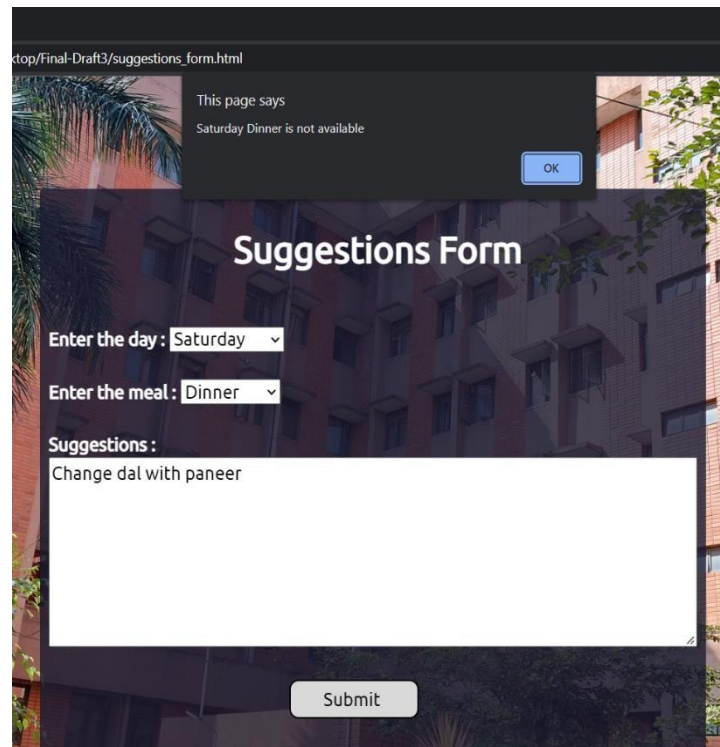
A screenshot of a web application's 'Suggestions Form'. The form is overlaid on a background image of a modern building with palm trees. It features a 'Back' button in the top right corner. The form has two dropdown menus: 'Enter the day' set to 'Monday' and 'Enter the meal' set to 'Breakfast'. Below these is a text input field labeled 'Suggestions:' with the placeholder text 'Enter your suggestions'. A 'Submit' button is at the bottom center.

Fig 3.3.3.2

- Suggestion form also checks for cases which aren't possible, for instance user selects "Saturday dinner" or "Saturday snacks" which isn't correct as snacks and dinner are not provided on Saturday.
- Also, it checks if suggestion is invalid or not.

### Validations

A screenshot of the 'Suggestions Form' showing a validation error. A dark modal box at the top displays the message 'This page says Saturday Dinner is not available' with an 'OK' button. The form below shows 'Enter the day' set to 'Saturday' and 'Enter the meal' set to 'Dinner'. The 'Suggestions:' text input field contains the text 'Change dal with paneer'. The 'Submit' button is at the bottom.

y/Final-Draft3/suggestions\_form.html?day=Sat&meal=din&reviews=Change+dal+with+paneer

This page says  
Suggestion given should be in alphanumeric

OK

## Suggestions Form

Enter the day : Thursday ▾

Enter the meal : Snacks ▾


Suggestions :  
@kjdsfjs

Submit

**Fig 3.3.3.3**

### 3.3.4 Fee-Payment

- The following tab displays fee details of the student and provides an option/button to pay it online.
  - Contains information about hostel fee, mess fee and late fee (if any).
- The page is created using <div> tag and table tag.



**BMS EDUCATIONAL TRUST HOSTELS**

Website

NOTIFICATIONS WARDEN DETAILS MESS FEE PAYMENT COMPLAINTS APPLICATIONS

PROFILE

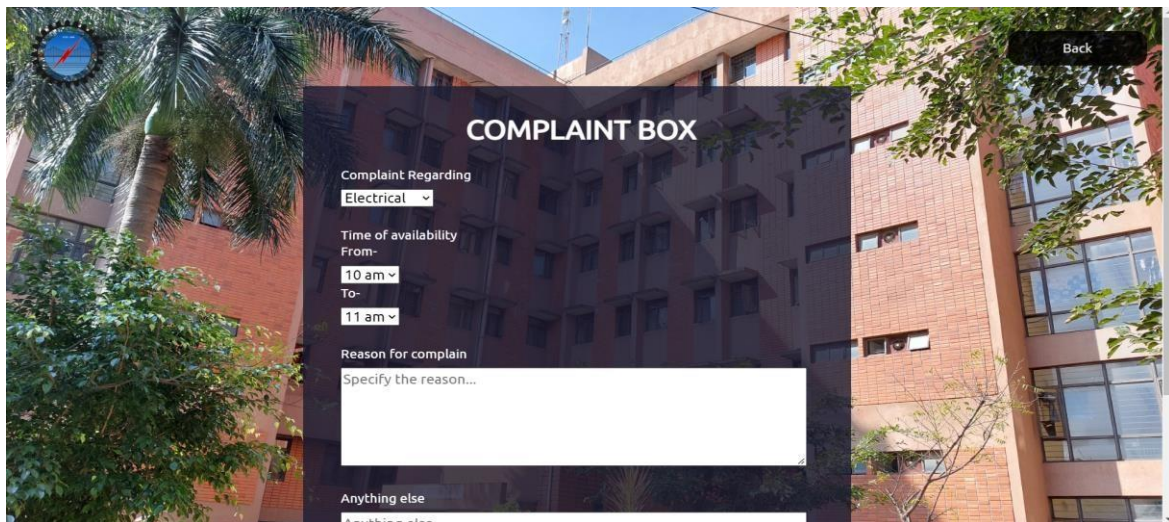
RAAVAN - FEE DETAILS

ACADEMIC DETAILS	
Academic Year	2022-2023
Year	Second
HOSTEL FEES	
Amount to be Paid	0
Balance Amount	0 <a href="#">Pay Now</a>
MESS FEES	
Amount to be Paid	0
Balance Amount	0 <a href="#">Pay Now</a>

**Fig 3.3.4**



### 3.3.5 Complaint



The screenshot shows a web form titled "COMPLAINT BOX" overlaid on a background image of a multi-story building. The form includes the following fields:

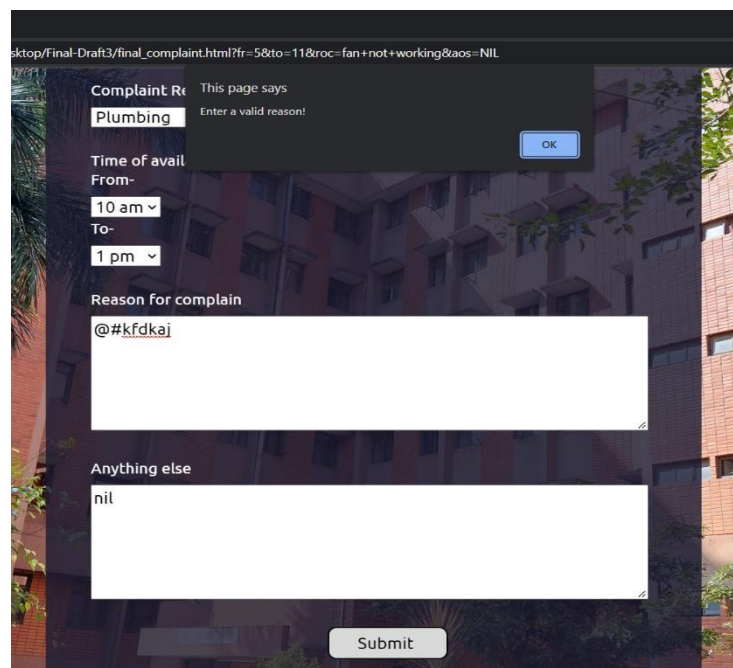
- Complaint Regarding:** A dropdown menu with "Electrical" selected.
- Time of availability:** Two dropdown menus labeled "From-" and "To-". "From-" has "10 am" selected, and "To-" has "11 am" selected.
- Reason for complain:** A text input field with the placeholder text "Specify the reason...".
- Anything else:** A text input field with the placeholder text "Anything else".

A "Back" button is located in the top right corner of the form overlay.

Fig 3.3.5.1

- The following page takes in the general complaints from hostelites, taking in details about time of availability and the reason.
- The page is created using form tag and takes input from the users alongwith checking if the time of availability is appropriate, mobile number is correct and the reason entered is valid.

### Validations



This screenshot shows the same "COMPLAINT BOX" form as in Fig 3.3.5.1, but with validation messages and user input:

- Complaint Regarding:** The dropdown now shows "Plumbing". A message "This page says: Enter a valid reason!" is displayed above the "Time of avail" section, with an "OK" button.
- Time of availability:** "From-" is "10 am" and "To-" is "1 pm".
- Reason for complain:** The text input field contains "@#kfdkaj".
- Anything else:** The text input field contains "nil".

A "Submit" button is at the bottom of the form.

desktop/Final-Draft3/final\_complain.html

This page says  
Select valid time duration!

Complaint Register  
Mechanical

Time of availability  
From-  
5 pm  
To-  
11 am

Reason for complain  
fan not working

Anything else  
NIL

Submit

**Fig 3.3.5.2**

**3.3.6 Application** • The application tab has a dropdown to select for the application to either be a leave application or a late coming application.

### 3.3.6.1 Leave Application

Back

**LEAVE APPLICATION**

Date of leave  
From:  
dd-mm-yyyy  
To:  
dd-mm-yyyy

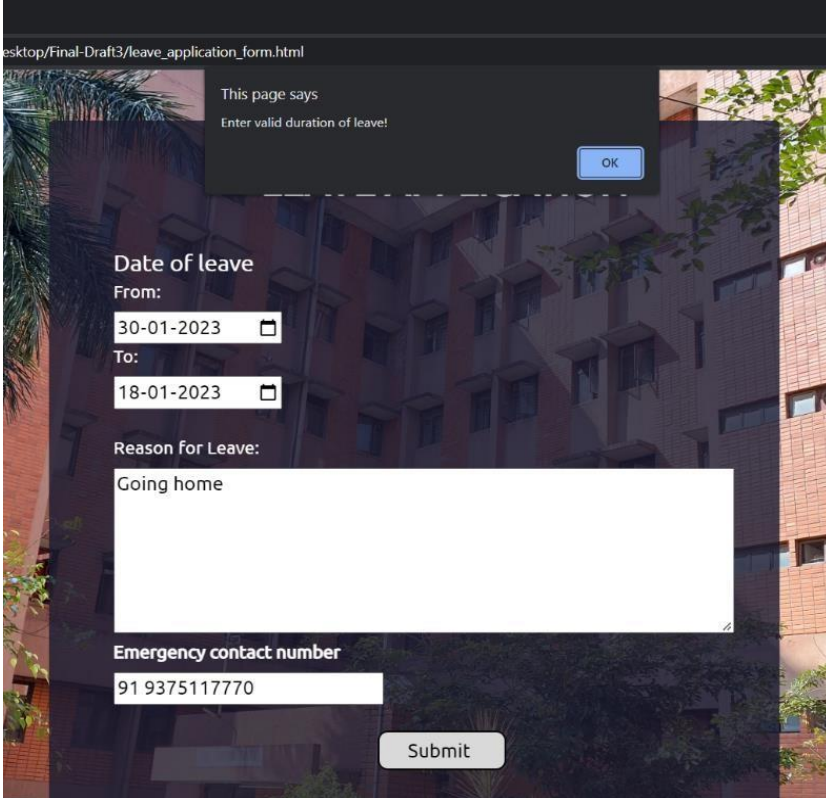
Reason for Leave:  
Specify the reason...

Emergency contact number  
+91

**Fig 3.3.6.1**

- The following page takes in the information about the duration of leave, reason for leave and emergency contact number from the user.
- It checks for if the duration entered is correct, the reason is valid and a valid contact number is entered or not.

## **Validations**



The screenshot shows a web browser window with the address bar displaying "desktop/Final-Draft3/leave\_application\_form.html". A dark modal dialog box is overlaid on the form, containing the text "This page says" and "Enter valid duration of leave!" with an "OK" button. The background form is titled "Date of leave" and includes fields for "From:" (30-01-2023) and "To:" (18-01-2023), both with calendar icons. Below these is a "Reason For Leave:" section with a text area containing "Going home". At the bottom, there is an "Emergency contact number" field with the value "91 9375117770" and a "Submit" button.



Desktop/Final-Draft3/leave\_application\_form.html?From=2023-01-05&To=2023-01-16&messag=%40%23%24lkfjldsk&phone=91+

This page says  
Enter correct phone number!

OK

**Date of leave**  
From:  
16-01-2023  
To:  
25-01-2023

**Reason for Leave:**  
Going home

**Emergency contact number**  
91 25481

Submit

Desktop/Final-Draft3/leave\_application\_form.html?From=2023-01-30&To=2023-01-18&messag=Going+home&phone=91+93751

This page says  
Please enter a valid reason!

OK

**Date of leave**  
From:  
05-01-2023  
To:  
16-01-2023

**Reason for Leave:**  
@#\$lkfjldsk

**Emergency contact number**  
91 2587413690

Submit

Fig 3.3.6.1

### 3.3.6.2 Late Coming Application

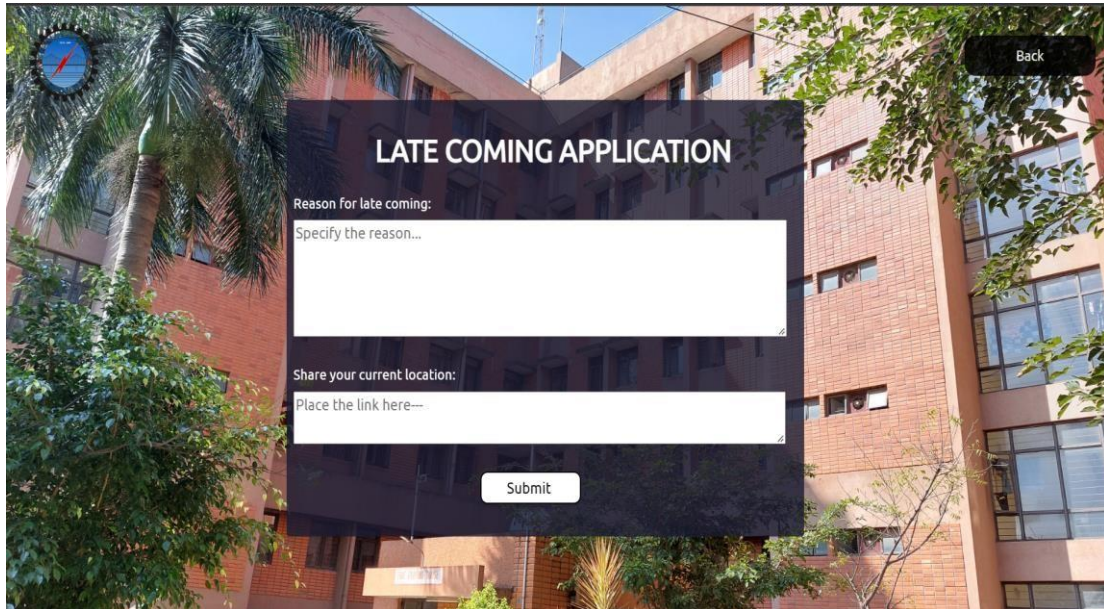
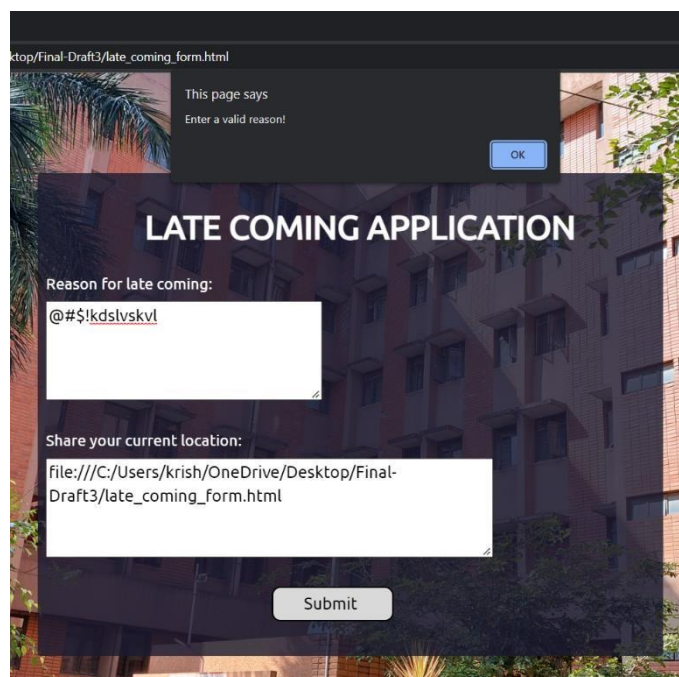


Fig 3.3.6.2

- Following tab helps the user to put in a late coming application taking in inputs about the reason and the current location.
- It checks if a valid reason is entered and a valid link is shared or not.

### Validations



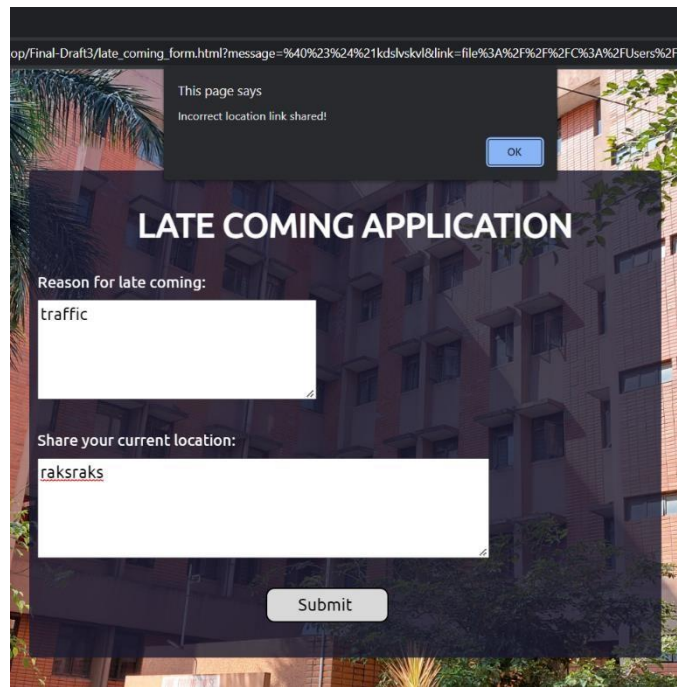


Fig 3.3.6.2

## Chapter 4

### BMS Educational Trust Hostels

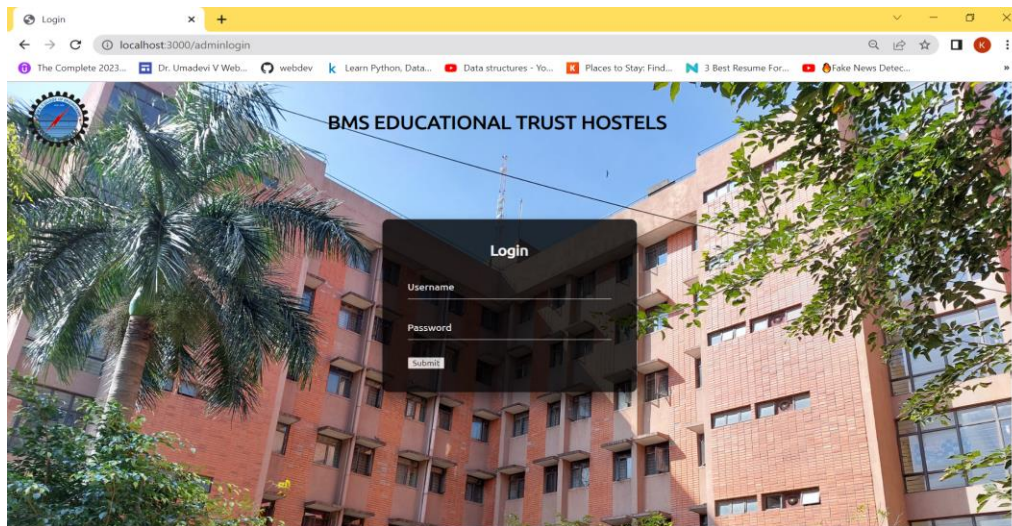


Fig 4

- To view details, the administrator must sign in.
- Username and password should be entered by the Admin to login.
- To log in, click the Submit button.
- The page validates if a valid username is entered and displays a pop-up when login is successful.



## 4.1 BMSCE ADMIN

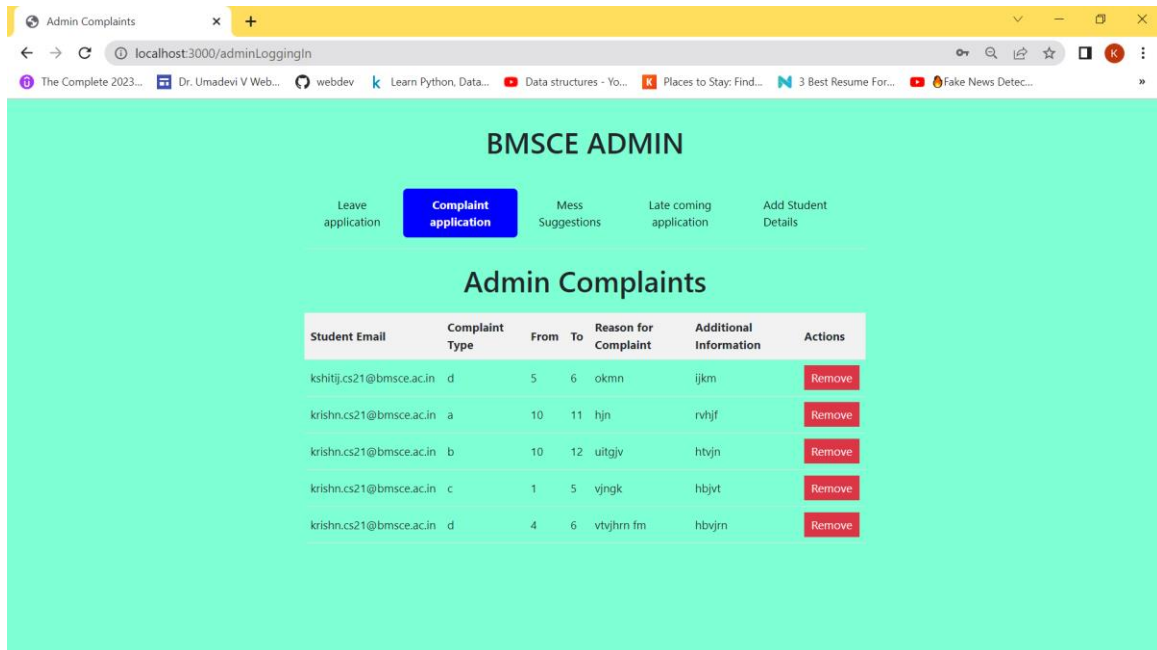


Fig 4.1

- The page is divided using <div> tags.
- The page is divided into two parts – header and main body.
- Header contains leave application, complaint application, mess suggestion, late coming application and to add student details form.
- There are current and unresolved complaints in the body.

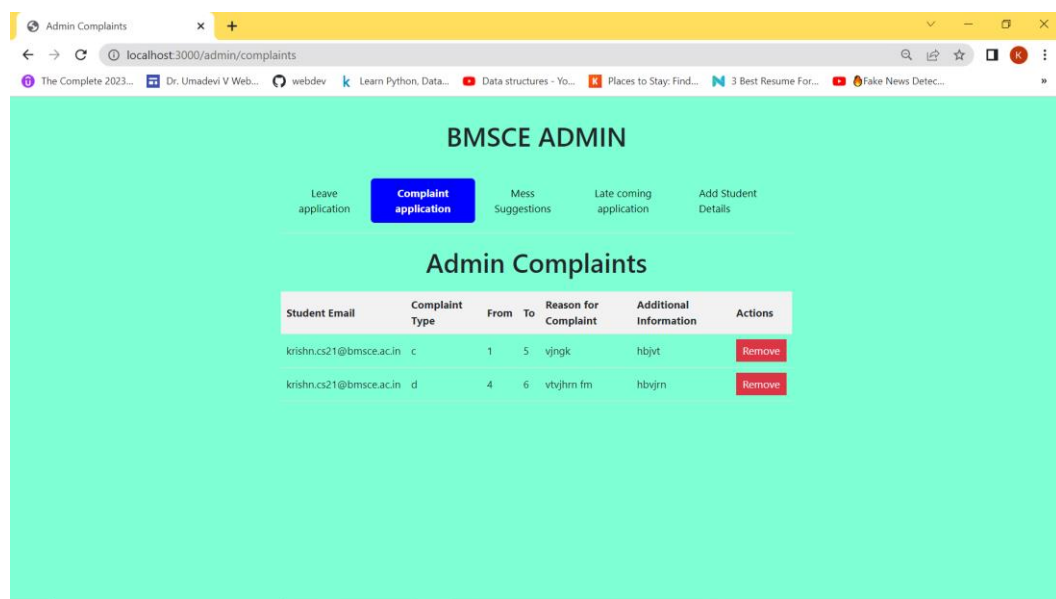
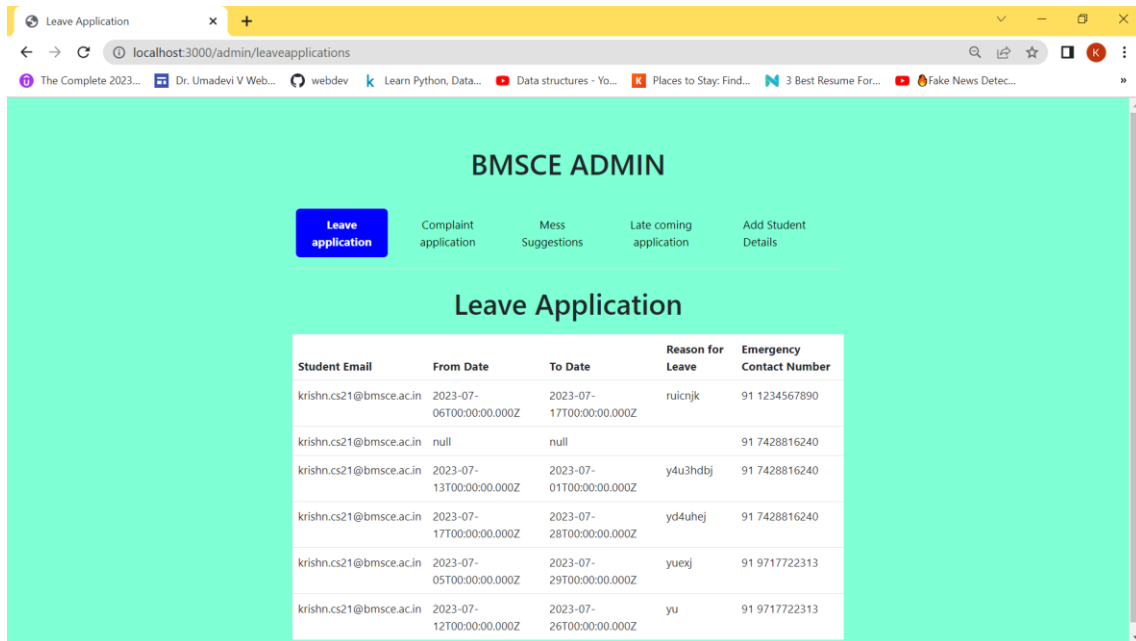


Fig 4.1.1

- Once the issue has been resolved, the administrator may delete the complaint by using the remove button.

## 4.2 LEAVE APPLICATION

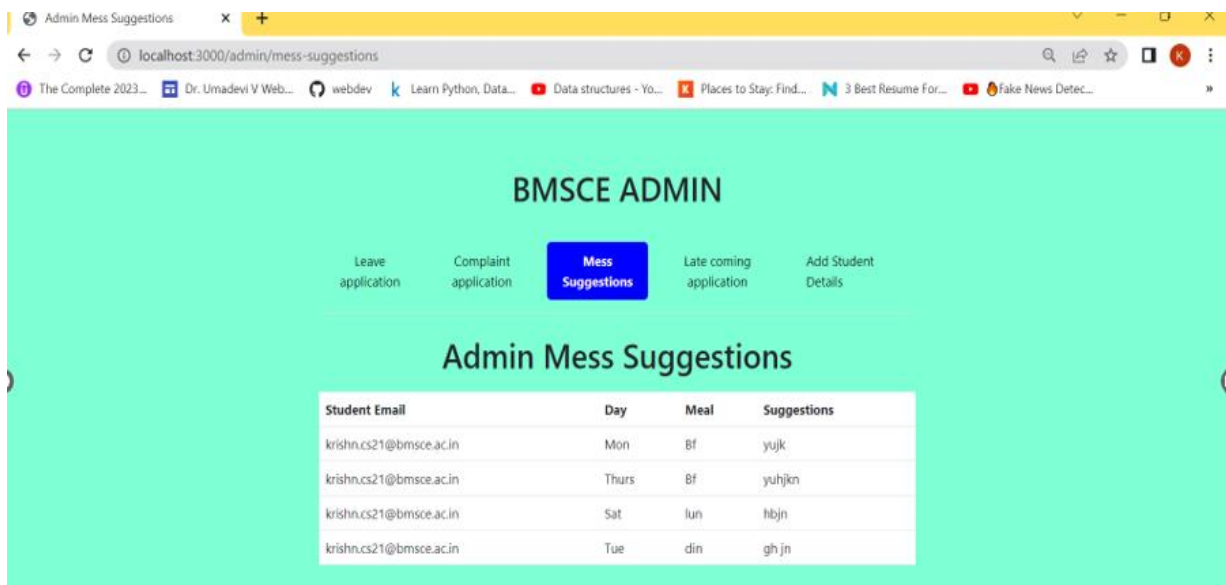


Student Email	From Date	To Date	Reason for Leave	Emergency Contact Number
krishn.cs21@bmsce.ac.in	2023-07-06T00:00:00.000Z	2023-07-17T00:00:00.000Z	ruicnjk	91 1234567890
krishn.cs21@bmsce.ac.in	null	null		91 7428816240
krishn.cs21@bmsce.ac.in	2023-07-13T00:00:00.000Z	2023-07-01T00:00:00.000Z	y4u3hdbj	91 7428816240
krishn.cs21@bmsce.ac.in	2023-07-17T00:00:00.000Z	2023-07-28T00:00:00.000Z	yd4uhej	91 7428816240
krishn.cs21@bmsce.ac.in	2023-07-05T00:00:00.000Z	2023-07-29T00:00:00.000Z	yuexj	91 9717722313
krishn.cs21@bmsce.ac.in	2023-07-12T00:00:00.000Z	2023-07-26T00:00:00.000Z	yu	91 9717722313

Fig 4.2

- The following page gives the information about leave application.
- It displays information about the pupils who recently took leave.
- Leave application contain student email, from-date, to-date, reason for leave and emergency contact number.

## 4.3 ADMIN MESS SUGGESTION



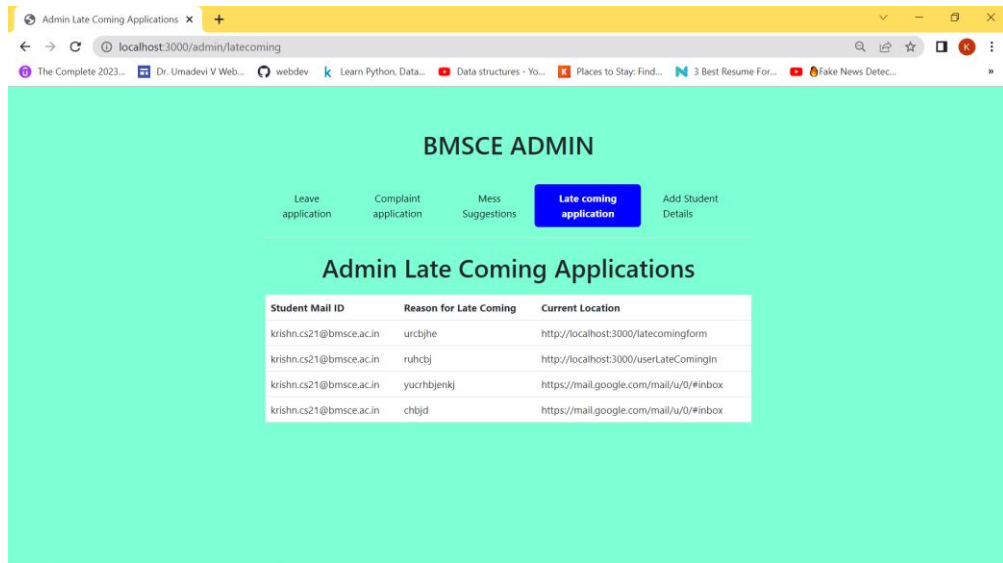
Student Email	Day	Meal	Suggestions
krishn.cs21@bmsce.ac.in	Mon	Bf	yujk
krishn.cs21@bmsce.ac.in	Thurs	Bf	yuhjkn
krishn.cs21@bmsce.ac.in	Sat	lun	hbjn
krishn.cs21@bmsce.ac.in	Tue	din	ghjn

Fig 4.3

- The following page gives the information about Mess Suggestion.
- It displays information about students' email, Meal-day, meal and Suggestion.



## 4.4 ADMIN LATE COMING APPLICATIONS



**Fig 4.4**

- This page provides information on all of the students that submitted late applications.
- It include information like student mail id, reason for late coming and current location.

## 4.3 STUDENT FORM

**Student Form**

**Name:**  
Enter your name

**Phone Number:**  
Enter your phone number

**Section 1:**  
Enter Section 1

**Section 2:**  
Enter Section 2

**Section 3:**  
Enter Section 3

**Parent Relation:**  
Enter Parent Relation

**Parent Occupation:**  
Enter Parent Occupation

**Fig 4.3.1**

Form

localhost:3000/adminaddstudent

Enter Room Number

**Roommate Name:**

Enter Roommate Name

**Roommate Phone Number:**

Enter Roommate Phone Number

**Roommate Email ID:**

Enter Roommate Email ID

**Hostel Address:**

Enter Hostel Address

**Password:**

Enter a password

Your password must be 8-20 characters long, contain letters and numbers, and must not contain spaces, special characters, or emojis.

☐ Verified

Submit

**Fig 4.3.2**

- This page include to add students' details by admin.
- Admin need to fill each detail given in (Fig4.3.1-Fig4.3.2).
- To save the students press on the submit button.